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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,664	07/26/2000	Ming Hung	004635.P001	6296

7590 01/13/2004

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EXAMINER

DO, NHAT Q

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 01/13/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/625,664

Applicant(s)

HUNG ET AL.

Examiner

Nhat Do

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 10-17 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 7, 9, 18, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-5, 8, 10, 11, 14-17, 19, 21, and 22 are rejected under 35

U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,590,901 to Jones.

Regarding to claim 1, Jones discloses a system comprising:

A memory, wherein the memory includes a plurality of logical memory devices (the PBRAM 62 includes PBRAM 94, and PBRAM 96 (Col. 11, lines 1-9; lines 30-50));
and

A network switch coupled to the memory, wherein the switch is adaptable to write a first portion of received packet data to a first of the plurality of logical memory devices and to write a second portion of the packet data to a second of the plurality of logical memory devices (All elements other than the DRAM ARRAY 74 disclosed in figure 7 constitute a switch. The first half of received packet 92 is stored in PBRAM 94, and the second half of the received packet 92 is stored in PBRAM 96 (Fig. 11; 1; col. 11, lines 1-9; lines 30-50)).

Regarding to claim 3, Jones discloses:

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The network switch comprises a memory controller (the command control 81, queue management 75 disclosed in figure 7 constitute the memory controller).

Regarding to claim 4, Jones discloses:

A first memory controller component coupled to the first logical memory device; and a second memory controller component coupled to the second logical memory device (Jones discloses each PBRAM 94, and PBRAM 96 is connected to command 76 (Fig. 9; col. 11, lines 40-45), the examiner is in the position the command 76 of the MAC Controller 60a is the first memory controller and the command 76 of the MAC Controller 60b is the second memory controller).

Regarding to claim 5, Jones discloses:

The first memory controller component and the second memory controller component access the corresponding logical memory devices via a shared address line (since the PBRAM 62 is a shared memory, it is inherent that the controllers access the memory devices via a shared address line).

Regarding to claims 8, and 22, Jones discloses memory controller maintains a record of the last of the plurality of logical memory devices that was written to (a packet table maintains the physical location of the PBRAM 62 (Col. 8, lines 57-68)).

Regarding to claim 10, Jones discloses:

The network switch further comprises a media access controller (MAC) coupled to the receiver (Since Jones disclose: the MAC controller 60 generates an end-of-packet when the transceiver detects an absent of the incoming packet (Col. 10, lines 36-43), it is inherent that the MAC controller 60 is coupled to the transceiver for

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receiving the indication of end-of-packet from the transceiver), wherein the MAC receives packet data via a plurality of ports coupled to the receiver (each MAC controller 60 has 8 data ports 70 (Col. 10, lines 10-18)).

Regarding to claim 11, the claim recites the rejected limitation of claim 10.

Regarding to claim 14, since the PBRAM 62 is a shared memory, it is inherent that the memory controller is adaptable to write a first portion of a first data packet received from a second of the plurality of ports to the first logical memory device and write a second portion of the first data packet received from the second port to a second logical memory device.

Regarding to claim 15, the claim recites the rejected limitations of claim 4.

Regarding to claim 16, the claim recites the rejected limitations of claim 5.

Regarding to claim 17, the claim recites the rejected limitations of claim 6.

Regarding to claim 19, the claim recites the rejected limitations of claim 1.

Regarding to claim 21, also from figure 11, Jones discloses the first haft of the second packet 90 is stored in PBRAM 94, and the second haft of the second packet 90 is stored in PBRAM 96.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 2, 12, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones.

Regarding to claims 2, 12, and 20, further to the rejection of claims 1, 11, and 19, Jones fails to disclose writing a third portion of the received packet data to a third of the plurality of logical memory device. However, the purpose of breaking and storing portions of received packets to different memory is to expand the memory (Col. 11, lines 1-9). Therefore, a skilled artisan would have been motivated to add a third (and/or a forth) PBRAM to the PBRAM 62 when the system requires more memory that the capacity of the two PBRAM 94, and 96.

Consequently, it would have been obvious to a person having ordinary skill in the art by the time the invention was made to write a third portion of the received packet data to a third of the plurality of logical memory device.

Regarding to claim 13, further to the rejection of claim 12, it is inherent that the memory controller writes a first portion of a second data packet received from the first port to a third logical memory device and a second portion of the second data packet received from the first port to a fourth logical memory device when the number of PBRAM added to the system is two.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones as applied to claim 2 above, and further in view of U.S. Patent No. 6,137,807 to Rusu et al.

Jones fails to disclose the memory devices are synchronous dynamic random access memories (SDRAMs).

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Rusu et al disclose SDRAM requires lower power consumption (Col. 4, lines 15-20). In order to save the power, it would have been obvious to a person having ordinary skill in the art by the time the invention was made to make the memory devices of Jones are synchronous dynamic random access memories (SDRAMs).

Allowable Subject Matter

6. Claims 7, 9, 18, 23, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhat Do whose telephone number is (703) 305-5743. The examiner can normally be reached on 9:00 AM - 6:00 PM (Monday-Friday).

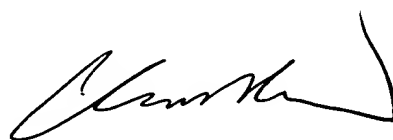
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9306.

ND

January 5, 2004

Nhat Do
Examiner
Art Unit 2663



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1/7/04